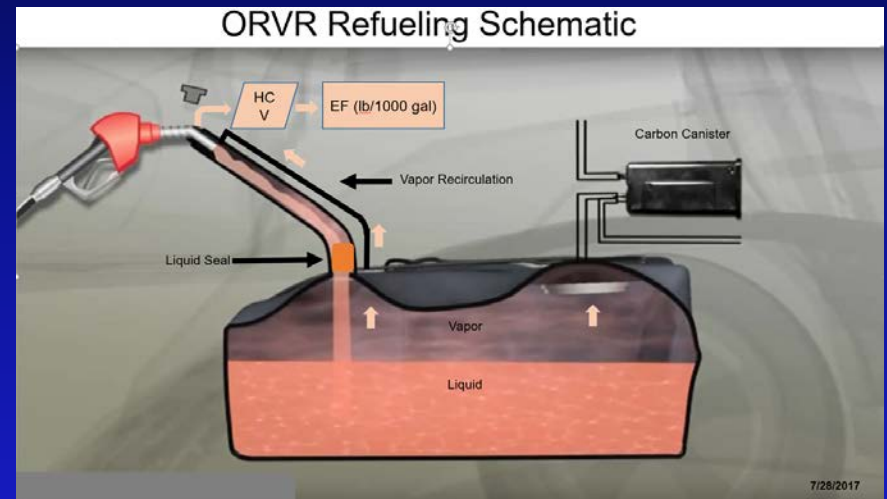


# ARB 2013 Gasoline Dispensing Facility- Phase II ORVR Emission Factor Update



South Coast AQMD Rule 1401 Working Group  
August 16, 2017

# Agenda

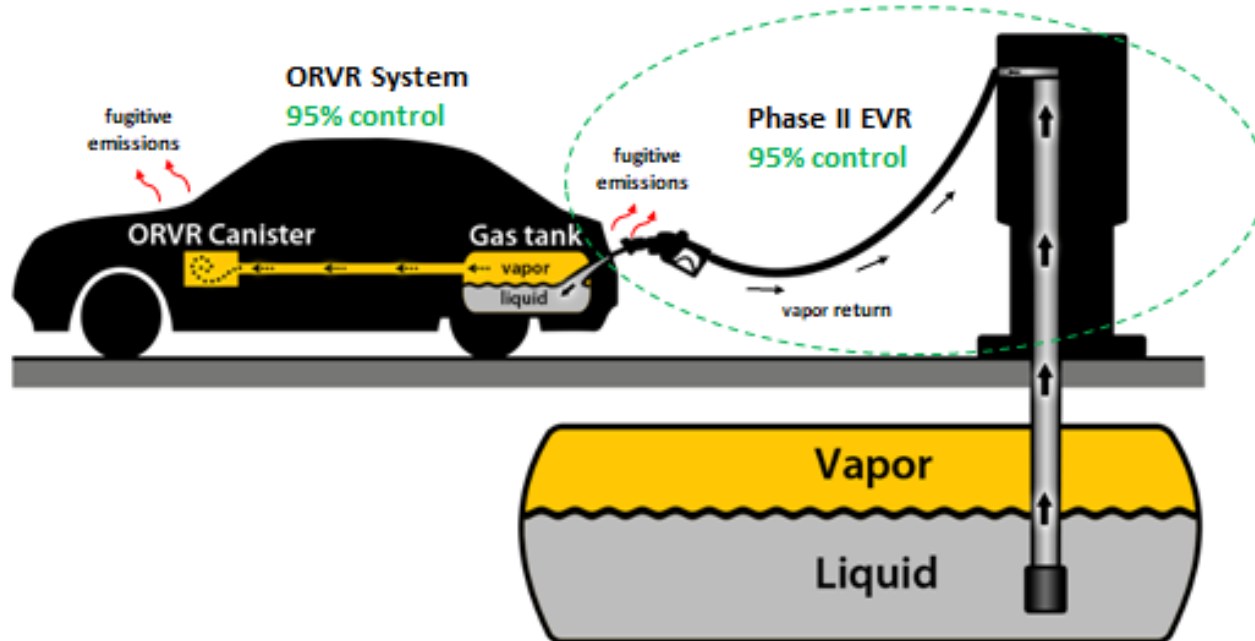
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- Background
- Operation of Vehicle ORVR System
- New Information
- Questions
- Contacts

# Background

- ARB staff in 2013 updated gasoline dispensing facility (GDF) emission factors (EF)
- SCAQMD staff recently questioned the validity of the Phase II fueling of ORVR vehicle EF

# Vapor Recovery Control of California ORVR Vehicles



With Onboard Refueling Vapor Recovery (ORVR) systems, motor vehicles capture gasoline vapors displaced during refueling

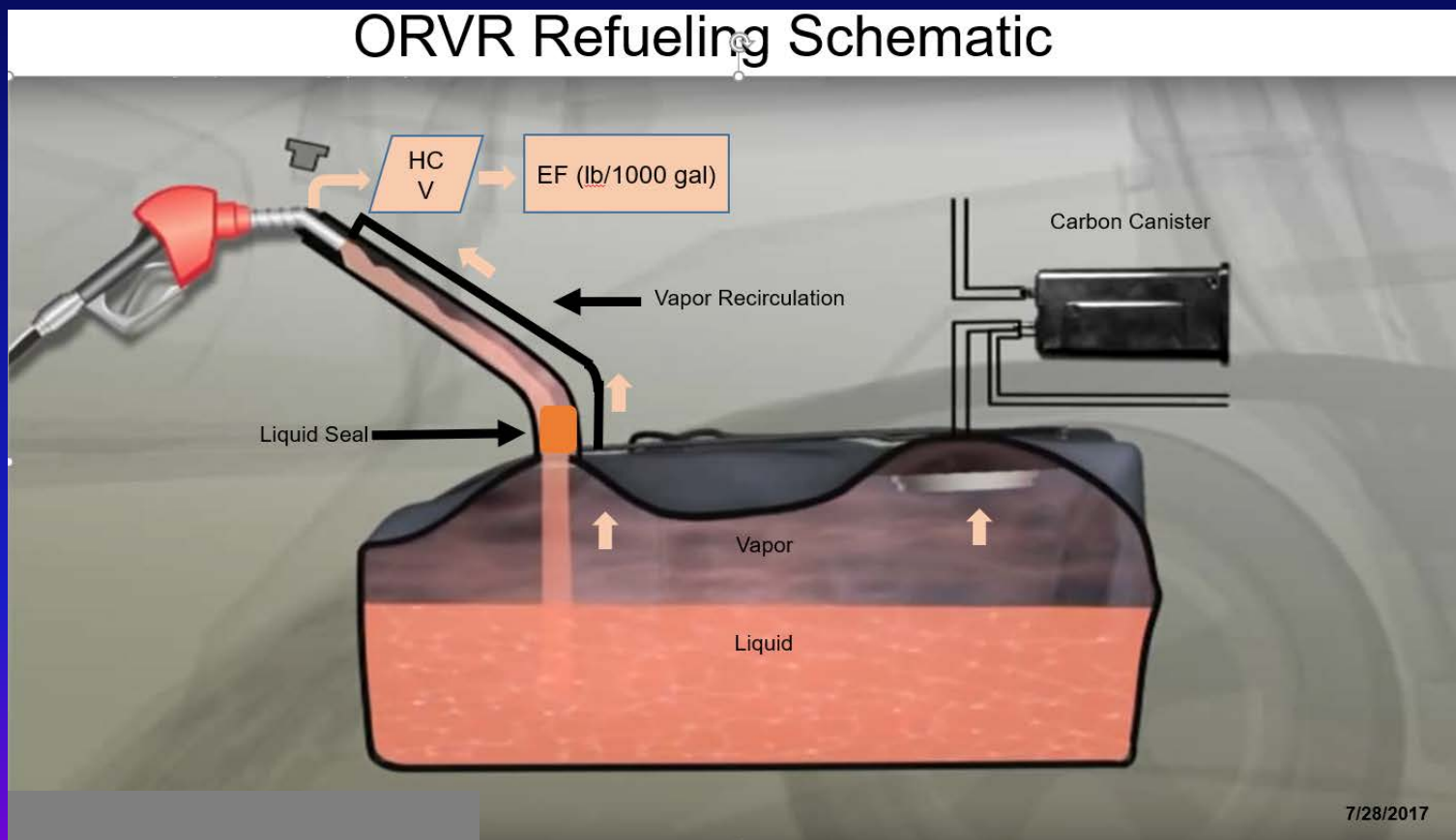
# 2013 GDF EF for Phase II Fueling of ORVR Vehicles

- Phase II Fueling Uncontrolled EF is 8.4 lbs/kgal (Non-ORVR Vehicle) - Displaced vapor released at vehicle fill pipe
- Phase II Fueling Controlled EF is 0.42 lbs/kgal (95% Efficiency) - Capture displaced vapor at fill pipe and return to underground storage tank
- Phase II Fueling of ORVR vehicles EF is 0.021 lbs/kgal (additional 95% efficiency for fueling ORVR vehicles)
  - Assume all emissions from ORVR vehicles are released at fill pipe

# SCAQMD Staff Concern with Phase II ORVR EF

- Phase II Fueling Uncontrolled EF is 8.4 lbs/kgal (Non-ORVR Vehicles) - Agreement with ARB staff
- Phase II Fueling Controlled EF is 0.42 lbs/kgal (Non-ORVR or ORVR Vehicles without Phase II) - Agreement with ARB staff
- Question that Phase II Fueling of ORVR vehicles does not include an additional 95% control (double counting) - ARB staff disagree
  - SCAQMD staff assume that displaced vapors are controlled by either ORVR or Phase II, but not both

# Operation of Vehicle ORVR System



# New Information

- ARB staff is evaluating new information from Glenn Passavant (formerly with U.S. EPA and now with Ingevity) which suggests Phase II ORVR emission factor may be greater than 0.021 lbs/kgal



# Proposed GDF EF Update Process

- Prepare draft addendum to 2013 GDF EF explaining reason for changing Phase II EVR ORVR EF
- ARB staff internal review and comment
- Consider additional data, if available
- 30 day public comment period of draft addendum to CAPCOA and then public stakeholders
- Final addendum

# Questions



# Contacts

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